

## Product datasheet for **SC327574**

### PAK2 (NM\_002577) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PAK2 (NM_002577) Human Untagged Clone
Tag:	Tag Free
Symbol:	PAK2
Synonyms:	PAK65; PAKgamma
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_002577 edited  
 AGATCTGGTACCGATGTCTGATAACGGAGAACTGGAAGATAAGCCTCCAGCACCTCCTGT  
 GCGAATGAGCAGCACCATCTTTAGCACTGGAGGCAAAGACCCCTTTGTCAGCCAATCACAG  
 TTTGAAACCTTTGCCCTCTGTTCCAGAAGAAAAAGCCAGGCATAAAATCATCTCCAT  
 ATTCTCAGGCACAGAAAAGGAAGTAAAAAGAAAAGAAAGGAACGGCCAGAAATTTCTCC  
 TCCATCTGATTTTGAGCACACCATCCATGTTGGCTTTGATGCTGTTACTGGAGAATTCAC  
 TGGCATGCCAGAACAGTGGGCTCGATTACTACAGACCTCCAATATCACCAAACCTAGAGCA  
 AAAGAAGAATCCTCAGGCTGTGCTGGATGCCTAAAGTTCTACGACTCCAACACAGTGAA  
 GCAGAAATATCTGAGCTTTACTCCTCTGAGAAAAGATGGCTTTCTTCTGGAACACCAGC  
 ACTGAATGCCAAGGGAACAGAAGCACCCGCAGTAGTGACAGAGGAGGAGGATGATGATGA  
 AGAGACTGCTCCTCCCGTTATTGCCCGCGACCGGATCATACGAAATCAATTTACACACG  
 GTCTGTAATTGACCCTGTTCTGCACCAGTTGGTGATTACATGTTGATGGTGCTGCCAA  
 GTCTTTAGACAAACAGAAAAAGAAAGACTAAGATGACAGATGAAGAGATTATGGAGAAAT  
 AAGAACTATCGTGAGCATAGGTGACCCTAAGAAAAATATACAAGATATGAAAAATTTGG  
 ACAAGGGGCTTCTGGTACAGTTTTCACTGCTACTGACGTTGCACTGGGACAGGAGTTGC  
 TATCAAACAAATTAATTTACAGAAACAGCCAAAGAAGGAACTGATCATTACGAGATTCT  
 GGTGATGAAAGAATTGAAAAATCCCAACATCGTTAACTTTTTGGACAGTTACCTGGTAGG  
 AGATGAATTGTTTGTGGTCATGGAATACCTTGCTGGGGGTCCTCACTGATGTGGTAAC  
 AGAAACGTGCATGGATGAAGCACAGATTGCTGCTGTATGCAGAGAGTGTTTACAGGCATT  
 GGAGTTTTTACATGCTAATCAAGTGATCCACAGAGACATCAAAGTGACAATGACTTTTT  
 GGGAAATGGAAGGATCTGTTAAGTCACTGACTTTGGTTTTCTGTGCCCAGATCACCCCTGA  
 GCAGAGCAAACGCAGTACCATGGTCGGAACGCCATACTGGATGGCACCAGAGGTGGTTAC  
 ACGGAAAAGCTTATGGCCCTAAAGTCGACATATGGTCTCTGGGTATCATGGCTATTGAGAT  
 GGTAGAAGGAGAGCCTCCATACCTCAATGAAAATCCCTTGAGGGCCTTGACCTAATAGC  
 AACTAATGGAACCCAGAACTTCAGAATCCAGAGAACTTTCCCAATATTTTCGGGATTT  
 CTTAAATCGATGTTTGGAAATGGATGTGAAAAAAGGGTTTCAGCCAAAGAATTATTACA  
 GCATCCTTTCTGAAACTGGCCAAACCGTTATCTAGCTTGACACCACTGATCATGGCAGC  
 TAAAGAAGCAATGAAGAGTAACCGTTAACATCACTGCTGTGGCCTCATACTCTTTTT

**Restriction Sites:** Please inquire

**ACCN:** NM\_002577

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<b>OTI Annotation:</b>	This clone may be unstable or toxic at high copy number in common E. coli strain. We recommend using a lower copy number E. coli strain, such as CopyCutter strain ( <a href="http://www.epibio.com/item.asp?ID=435">http://www.epibio.com/item.asp?ID=435</a> ) for transformation and plasmid preparation. Please be aware that the DNA yield could be low. Additional aliquots of this clone can be ordered from OriGene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_002577.4</a></u> , <u><a href="#">NP_002568.2</a></u>
<b>RefSeq Size:</b>	6139 bp
<b>RefSeq ORF:</b>	1575 bp
<b>Locus ID:</b>	5062
<b>UniProt ID:</b>	<u><a href="#">Q13177</a></u>
<b>Cytogenetics:</b>	3q29
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Axon guidance, ErbB signaling pathway, Focal adhesion, MAPK signaling pathway, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway
<b>Gene Summary:</b>	The p21 activated kinases (PAK) are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. The PAK proteins are a family of serine/threonine kinases that serve as targets for the small GTP binding proteins, CDC42 and RAC1, and have been implicated in a wide range of biological activities. The protein encoded by this gene is activated by proteolytic cleavage during caspase-mediated apoptosis, and may play a role in regulating the apoptotic events in the dying cell. [provided by RefSeq, Jul 2008]